Clinical Trial Protocol
Iranian Registry of Clinical Trials

09 Nov 2026

Comparison of the effect of two simulation methods on the mannequin and the escape room on team performance and self-efficacy understanding of nursing students of the two and three semester regarding the evaluation of cardiopulmonary resuscitation training.

Protocol summary

Study aim
Determining the effect of CPR training based on simulation with mannequin and escape room game on team performance and understanding of self-efficacy of second and third semester nursing students.

Design
Clinical trial with a control group, with crossover groups, without blinding, randomized. A set of cards was used for randomization.

Settings and conduct
This study is conducted in Zabol Nursing School. At first, meetings are held to determine the evaluation goals. After that, there will be a meeting for all the students for the revival training and then the revival test. In the next stage, only in the intervention group, the escape room is held based on the scenario related to CPR. Finally, the questionnaires are distributed after the intervention and three weeks later. At the end of the session, the students' performance will be review.

Participants/Inclusion and exclusion criteria
Entry criteria: the participant must be a 2nd and 3rd semester nursing student of Zabol Nursing and Midwifery College. Exclusion criteria: having incomplete grades.

Intervention groups
At first, in both groups, the resuscitation test is taken. Then, only in the intervention group, the escape room game with an educational scenario related to CPR will be performed for 45 minutes. The students will be present in the escape room and after solving the riddles and opening the boxes in the room, they will perform cardiopulmonary resuscitation. They will work on mannequins and their performance will be evaluated.

Main outcome variables
Determining the average satisfaction of the nursing students after the resuscitation training based on the escape room game; Comparison of average score of team performance and self-efficacy of students after CPR training based on escape room game and simulation with mannequin

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20240306061190N1**
Registration date: **2024-04-02, 1403/01/14**
Registration timing: **prospective**

Last update: **2024-04-02, 1403/01/14**
Update count: **0**

Registration date
2024-04-02, 1403/01/14

Registrant information

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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2024-04-06, 1403/01/18

Expected recruitment end date
2024-06-19, 1403/03/30

Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Comparison of the effect of two simulation methods on the mannequin and the escape room on team performance and self-efficacy understanding of nursing students of the two and three semester regarding the evaluation of cardiopulmonary resuscitation training.

Public title
Comparison of the effect of two simulation methods on the mannequin and the escape room on team performance and self-efficacy understanding of nursing students regarding the evaluation of cardiopulmonary resuscitation training.
Purpose
Education/Guidance
Inclusion/Exclusion criteria
Inclusion criteria:
The participant must be a 2nd and 3rd semester nursing student of Zabol Nursing and Midwifery Faculty. There should not be a separate course or workshop apart from the curriculum in the field of cardiopulmonary resuscitation They have not participated in similar researches.
Exclusion criteria:
Having incomplete grades. Not enrolling in the internship. Unwillingness to cooperate in research
Age
No age limit
Gender
Both

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **45**
Randomization (investigator's opinion)
Randomized
Randomization description
Randomization method: simple randomization. Randomization Unit: Individual. Randomization Tool: Card Set. How to make a random sequence: The name of each student is written on a card. After the cards are drawn, the cards are divided between two groups.
Blinding (investigator's opinion)
Not blinded
Blinding description
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of Zabol University of Medical Sciences
Street address
Faculty of Nursing and Midwifery , East Ferdowsi St. , Zabol , Iran
City
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Province
Sistan-va-Balouchestan
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9861734184
Approval date
2024-03-05, 1402/12/15
Ethics committee reference number
IR.ZBMU.REC.1402.157

Health conditions studied

1

Description of health condition studied
Cardiopulmonary resuscitation training
ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
Team performance score in Mayo questionnaire
Timepoint
Immediately after the cardiopulmonary resuscitation test with a mannequin simulation method and immediately after the escape room and three weeks after that.
Method of measurement
Mayo Team Performance Questionnaire

2

Description
Self-efficacy perception score in Turner questionnaire
Timepoint
Immediately after the cardiopulmonary resuscitation test with a mannequin simulation method and immediately after the escape room and three weeks after that.
Method of measurement
Turner self-efficacy perception questionnaire

Secondary outcomes

empty

Intervention groups

1

Description
Control group: At first, a one-hour CPR training session will be held separately for all second and third semester nursing students, the content of which is based on the American Heart Association CPR guidelines in 2023. Then, the cardiopulmonary resuscitation test for all groups will be conducted separately by the researcher and research assistants. A masterful research on cardiopulmonary resuscitation and will be evaluated based on the checklist based on the cardiopulmonary resuscitation guide of the American Heart Association.

Category
Behavior

2

Description
Intervention group: In the clinical skills center of the faculty, the escape room is designed as a room in one of the hospital departments with a sink, glove box, patient bed, telephone and monitor, etc. In total, an escape room will be provided for the evaluation of the students and the simulated patient (mannequin) will be placed on the bed. Immediately before the start of the escape room game, all students will participate in a 10-minute face-to-face introductory session, and the rules and roles will be explained to them by the researcher. And the members of each group are asked to identify the team leader and divide the roles. Then, the intervention will be conducted by holding an escape room game with an educational scenario related to cardiopulmonary resuscitation by the researcher for 45 minutes. The students will be present in the escape room and after solving the riddles and opening the boxes in the room, they will perform cardiopulmonary resuscitation on the mannequin. will pay and their performance will be evaluated by the researcher and research assistants based on the checklist based on the cardiopulmonary resuscitation guide of the American Heart Association.

Category
Behavior

Recruitment centers

1

Recruitment center

Name of recruitment center
Zabol School of Nursing and Midwifery

Full name of responsible person
Mahin Naderifar

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Sponsors / Funding sources

1

Sponsor

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Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?
Yes

Title of funding source
Zabol University of Medical Sciences

Proportion provided by this source
100

Public or private sector
Public

Domestic or foreign origin
Domestic

Category of foreign source of funding
empty

Country of origin

Type of organization providing the funding
Academic

Person responsible for general inquiries

Contact

Name of organization / entity
Zabol University of Medical Sciences

Full name of responsible person
Mohammad hosein Abdollahi nodehi

Position
Student

Latest degree
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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available
Study Protocol
Undecided - It is not yet known if there will be a plan to make this available
Statistical Analysis Plan
No - There is not a plan to make this available
Informed Consent Form
No - There is not a plan to make this available
Clinical Study Report
Not applicable
Analytic Code
No - There is not a plan to make this available
Data Dictionary
No - There is not a plan to make this available